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# Cisco Catalyst IE3200 Rugged Series

# Contents

The Cisco Catalyst® IE3200 Rugged Series ushers in mainstream adoption of Gigabit Ethernet connectivity in a compact form factor for a wide variety of extended enterprise and industrial applications.

## Product overview

The Cisco Catalyst IE3200 Rugged Series delivers high-speed Gigabit Ethernet connectivity in a compact form factor and is designed for a wide range of industrial applications where hardened products are required. The platform is built to withstand harsh environments in manufacturing, energy, transportation, mining, smart cities, and oil and gas. The IE3200 platform is also ideal for extended enterprise deployments in outdoor spaces, warehouses, and distribution centers.

These switches run Cisco IOS® XE, a next-generation operating system with built-in security and trust, featuring secure boot, image signing, and a Cisco® Trust anchor module. Cisco IOS® XE also provides API-driven configuration with open APIs and data models.

The Cisco Catalyst IE3200 Rugged Series can be managed with powerful management tools such as Cisco Catalyst Center, and can be easily set up with a completely redesigned, user-friendly, modern GUI tool called WebUI.

The IE3200 series supports power budget of up to 240W for PoE/PoE+, shared across 8 ports, and is ideal for connecting PoE-powered end devices such as IP cameras, phones, wireless access points, sensors, and more.



**Figure 1.**
Cisco Catalyst IE3200 Rugged Series

# Features and benefits

**Table 1.**    Features and benefits

| Feature | Benefit |
|---|---|
| **Robust industrial design** | • Built for harsh environments and temperature ranges (-40°C to +75°C)<br>• Fanless, convection-cooled with no moving parts for extended durability<br>• Hardened for vibration, shock and surge, and electrical noise immunity<br>• Complies with multi-industry specifications for automation, ITS, and substation environments<br>• Improves uptime, performance, and safety of industrial systems and equipment<br>• Covers a wide range of Power over Ethernet (PoE) application requirements<br>• Alarm I/O for monitoring and signaling to external equipment |
| **Full Gigabit Ethernet interfaces** | • Provides secure access for new high-speed applications in the industrial space<br>• Packs up to 10 ports of GE - 2x1 Gigabit Small Form-Factor Pluggable (SFP) uplinks, plus 8x1 Gigabit copper RJ45 downlink ports (with PoE+ or non PoE) in a small form-factor base system<br>• Connects high-speed wireless access points (802.11n, 802.11ac, 802.11ax)<br>• Enables High-Definition (HD) IP cameras and Programmable Logic Controllers (PLC)<br>• Delivers multiple rings and redundant ring topologies for new network configurations<br>• Extends geographical scalability where longer-distance connectivity is required |
| **High-density industrial Power over Ethernet (PoE)** | • Supports up to 8 PoE/PoE+ ports [Power budget - 240W]<br>• Controls costs by limiting wiring, distribution panels, and circuit breakers<br>• Reduces equipment needs, thus requiring less space and reducing heat dissipation<br>• Enables ready-to-use PoE devices, such as IP phones, cameras, and wireless access points |
| **User-friendly GUI, called WebUI** | • Allows easy configuration and monitoring<br>• Eliminates the need for more complex terminal emulation programs<br>• Reduces the cost of deployment |
| **SwapDrive, a zero-configuration replacement** | • True zero-configuration and simple switch replacement in the event of a failure<br>• No networking expertise required<br>• Helps ensure fast recovery |
| **IPv6 Ready Logo** | • IPv6 Ready Logo Certified |

# Products overview

**Table 2.**    Product feature sets

| Product family | Platforms supported | Cisco IOS Software image (feature sets) supported |
|---|---|---|
| **IE3000** | IE3200 | Network Essentials (default) |

## Product specifications

Table 3 highlights the hardware configuration for Cisco Catalyst IE3200 Rugged Series switches.

**Table 3.** IE3200 Hardware configurations

| Product number* | Total ports | 10/100/1000 RJ45 Copper ports | 100/1000 SFP ports | Software license (Default) | PoE/ PoE(+) budget |
|---|---|---|---|---|---|
| **IE-3200-8T2S-E** | 10 | 8 | 2 | Network Essentials | N.A. |
| **IE-3200-8P2S-E** | 10 | 8 | 2 | Network Essentials | 240W |

Table 4 highlights the hardware specifications for Cisco Catalyst IE3200 Rugged Series switches.

**Table 4.** IE3200 Hardware specifications

| Hardware specification | Cisco IE-3200-8T2S-E | Cisco IE-3200-8P2S-E |
|---|---|---|
| **PoE power budget** | Not applicable | 240W[1] |
| **Removable storage** | USB[2,3], SD card[2] | USB[2,3], SD card[2] |
| **Alarms** | 2 alarms in, 1 alarm out | 2 alarms in, 1 alarm out |
| **Console ports** | 1 RS-232 (via RJ-45), 1 USB Mini Type B | 1 RS-232 (via RJ-45), 1 USB Mini Type B |
| **Power inputs** | Dual DC power inputs | Dual DC power inputs |

[1]In order to achieve the 240W power budget, the minimum power requirements as specified in Table 7 for the switch need to be considered when selecting a power supply.

[2]The USB and SD card are optional and are not shipped by default with the switch.

[3]USB 2.0 to load system images and set configurations

Table 5 highlights the physical configuration for Cisco Catalyst IE3200 Rugged Series switches.

**Table 5.** IE3200 physical configurations

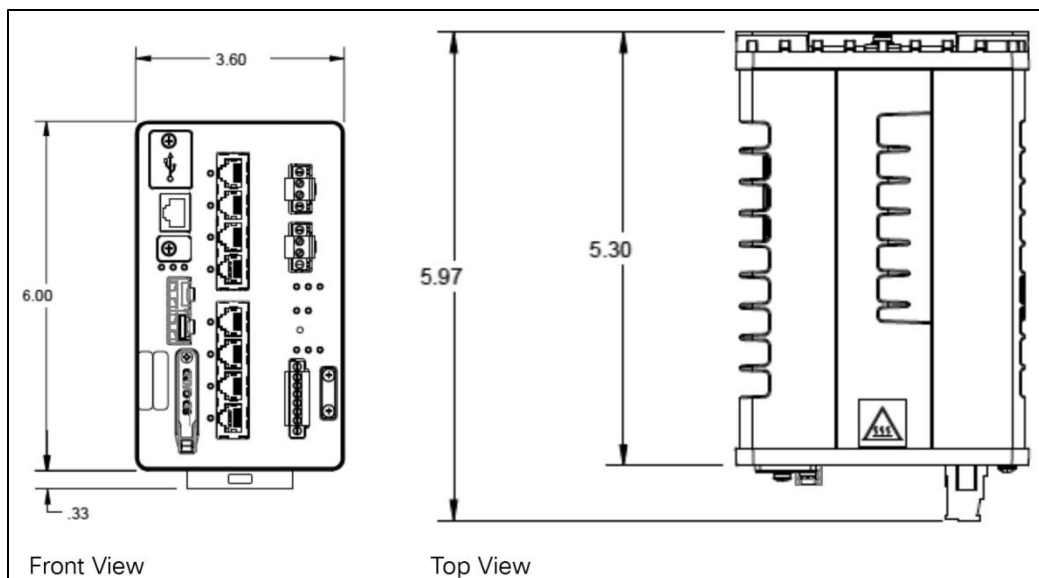| Physical specifications | Cisco IE-3200-8T2S-E | Cisco IE-3200-8P2S-E |
|---|---|---|
| **Dimensions (H x W x D)** | 6 in. X 3.6 in. X 5.3 in. 15.2 cm. x 9.1 cm. x 13.5 cm | 6.0 in. X 3.6 in. X 5.3 in. 15.2 cm. x 9.1 cm. x 13.5 cm |
| **Weight** | 3.8 lbs 1.7 kg | 3.8 lbs 1.7 kg |
| **Mounting** | DIN rail | DIN rail |

**Figure 2.**
Cisco Catalyst IE3200 dimensions

Table 6 highlights the performance and scalability features for Cisco Catalyst IE3200 Rugged Series switches.

**Table 6.**     IE3200 performance and scalability features

| Features | Cisco IE-3200-8T2S-E | Cisco IE-3200-8P2S-E |
|---|---|---|
| Forwarding rate | Line rate for all ports and all packet sizes | Line rate for all ports and all packet sizes |
| Number of queues | 8 | 8 |
| Unicast MAC addresses | 8K | 16K |
| Internet Group Management Protocol (IGMP) multicast groups | 1K | 1K |
| No. of VLANs | 256 | 256 |
| Spanning Tree Protocol (STP) instances | 128 | 128 |
| Access Control Entries (PACL/VACL/RACL) | 3K | 3K |
| DRAM | 2 GB | 2 GB |
| Flash (User Accessible) | 1.5 GB | 1.5 GB |
| SD card capacity[1] | 4 GB | 4 GB |
| Jumbo Frames | 8996 bytes | 8996 bytes |

[1]The SD card is optional and is not shipped by default with the switch.

Table 7 highlights the power specifications for Cisco Catalyst IE3200 Rugged Series switches.

**Table 7.**  IE3200 power specifications

| Features | Cisco IE-3200-8T2S-E | Cisco IE-3200-8P2S-E |
|---|---|---|
| **Input voltage range** | Redundant DC input voltage: 9.6 to 60VDC | Redundant DC input voltage: 9.6 to 60VDC<br><br>48VDC is required for PoE and 54VDC is required for PoE+ |
| **Maximum Input current** | 2.4A | 5.5A |
| **Power consumption[1]** | 23W | 32W |

[1]Power consumption for non PoE supported model is measured at 12V and for the PoE supported model is measured at 54V. Power consumption does not include PoE power.

Table 8 highlights the power supply options for Cisco Catalyst IE3200 Rugged Series switches.

**Table 8.**  Power supply options

| Product Number | Wattage | Rated nominal input operating range | PoE/PoE+ support[1] | More Details |
|---|---|---|---|---|
| **PWR-IE50W-AC=** | 50W | AC 100–240V/1.25A 50–60Hz or DC 125–250V/1.25A | No | Click here for more details on these DIN Rail power supplies |
| **PWR-IE50W-AC-IEC=** | 50W | AC 90–264V | No | |
| **PWR-IE50W-AC-L= [2]** | 50W | AC 100–240V/1.2A 50–60Hz | No | |
| **PWR-IE65W-PC-AC=** | 65W | AC 100–240V/1.4A 50–60Hz or DC 125–250V/1.0A | Yes | |
| **PWR-IE65W-PC-DC=** | 65W | DC 24–48VDC/4.5A | Yes | |
| **PWR-IE170W-PC-AC=** | 170W | AC 100–240V/2.3A 50–60Hz or DC 125–250V/2.1A | Yes | |
| **PWR-IE170W-PC-DC=** | 170W | DC 12–54VDC/23A | Yes | |
| **PWR-IE240W-PCAC-L= [2]** | 240W | AC 100–240V/3.5A 50–60Hz | Yes | |
| **PWR-IE480W-PCAC-L= [2]** | 480W | AC 100–240V/6.0A 50–60Hz | Yes | |

[1]The entire power budget for the switch and PoE ports needs to stay within the power supply wattage.

[2]The power supplies are not certified for smart grid and hazardous locations. These power supplies are IP20 rated.

Table 9 highlights the supported software features for Cisco Catalyst IE3200 Rugged Series switches.

**Table 9.** Key supported software features

| Network Essentials License (Perpetual) | Features |
|---|---|
| Layer 2 switching | IEEE 802.1, 802.3 standard, NTP, UDLD, CDP, LLDP, unicast MAC filter, PAgP, LACP, VTPv2, VTPv3, EtherChannel, Q-in-Q tunneling, voice VLAN, PVST+, MSTP, and RSTP |
| Multicast | IGMPv1, v2, v3 snooping, IGMP filtering, IGMP querier |
| Management | WebUI, MIB, SmartPort, SNMP, syslog, DHCP server, SPAN session, RSPAN, FSPAN, Express setup, NETCONF, RESTCONF |
| Security | Port security, 802.1x, Dynamic Host Configuration Protocol (DHCP) snooping, dynamic ARP inspection, IP source guard, guest VLAN, MAC authentication bypass, 802.1x multidomain authentication, storm control - unicast, multicast, broadcast, SCP, SSH, SNMPv3, TACACS+, RADIUS server/client, MAC address notification, BPDU guard, SUDI 2099 (Secure Unique Device identifier), Access Lists (PACL/RACL/VACL), MACsec-128, FIPS 140-2 |
| Quality of Service (QoS) | Ingress policing, rate limit, egress queuing and shaping, auto QoS |
| IPv6 | IPv6 host support, SNMP over IPv6, HTTP/HTTP(s) over IPv6, SNMP over IPv6, Syslog over IPv6, DHCPv6 relay source, DHCPv6 bulk lease query (RFC 5460), IPv6 stateless Auto Config, SCP/SSH, Radius, TACACS+, NTP over IPv6, IPV6 ND cache expire, IPv6 support for TFTP, IPv6 DNS transport, IPv6 QoS, IPv6 FHS RA Guard, IPv6 FHS DHCPv6 Guard |
| Layer 3 routing | Inter-VLAN routing, static routing |
| Industrial Ethernet | CIP Ethernet/IP, IEEE 1588 PTP v2 (default and power), PROFINET |
| Redundancy | Resilient Ethernet Protocol (REP) ring, PROFINET-Media Redundancy Protocol (MRP), REP Preferred, Fast REP |
| Utility | Dying gasp, SCADA protocol classification - GOOSE messaging, MODBUS TCP/IP |
| Automation | YANG, NETCONF, RESTCONF |

Table 10 highlights the details on Cisco Catalyst Center Essentials License for Cisco Catalyst IE3200 Rugged Series switches.

**Table 10.** Cisco IE3200 Cisco Catalyst Center Essentials License

| Feature | Description |
|---|---|
| Element Management | Discovery, topology, inventory, software image management |
| Assurance | Health Dashboards – Network, Client, Basic Switch and Wired Client Health Monitoring |
| Automation | Cisco Network Plug-and-Play application |
| Software Defined Access | SD-Access Extended Node, REP Ring workflow for Extended Nodes |

Cisco Catalyst Center licenses for Industrial Ethernet switches are add-on/optional and not mandatory, and need to be purchased separately. These do not include Network Tier features.

Table 11 highlights the compliance specifications for Cisco Catalyst IE3200 Rugged Series switches.

**Table 11.** Compliance specifications[1]

| Descriptions | Specifications |
|---|---|
| **Industrial Automation Control System** | IEC 62443-4-1<br>IEC 62443-4-2 |
| **Electromagnetic emissions** | FCC 47 CFR Part 15 subpart B Class A<br>EN 55032/CISPR 32 Class A<br>VCCI Class A<br>AS/NZS CISPR 32 Class A<br>CISPR 11 Class A<br>ICES 003 Class A<br>CNS 13438 Class A<br>KN 32 Class A<br>EN 300 386 |
| **Electromagnetic immunity** | CISPR 24<br>EN 55024<br>KN 35<br>EN 61000-4-2 Electro Static Discharge (air – 15kV, contact – 8kV)<br>EN 61000-4-3 Radiated RF (10V/m UTP, 20V/m STP)<br>EN 61000-4-4 Electromagnetic Fast Transients (4kV)<br>EN 61000-4-5 Surge (2KV/1KV Power, 4KV STP)<br>EN 61000-4-6 Conducted RF (10Vrms UTP)<br>EN 61000-4-10 Damped Oscillatory Magnetic Field (100 A/m)<br>EN 61000-4-16 Conducted CM Disturbances (30V, Cont/300V, 1 sec)<br>EN 61000-4-17 Ripple Immunity DC Power (10%)<br>EN 61000-4-18 Damped Oscillatory Wave (2.5kV, 1MHz)<br>EN-61000-4-29 DC Voltage Dips and interruptions<br>EN 61000-4-8 Power Frequency Magnetic Field (1000A/m) |
| **Industry standards** | EN 61000-6-2 Industrial Immunity<br>EN 61000-6-4 Industrial Emissions<br>EN 61000-6-1 Light Industrial Immunity<br>EN 61326-1 Measurement, Control and Laboratory Equipment<br>IEEE 1613 Electric Power Stations Communications Networking<br>EN/IEC 61850-3 Electric Substations Communications Networking<br>ODVA Industrial EtherNet/IP |

| Descriptions | Specifications |
|---|---|
| | NEMA TS 2-2016<br>AREMA C & S section 11, 19<br>IP30 |
| **Marine I** | DNC Certification according to class guideline DNV-CG-0339<br>Additional Standards:<br>IEC 60945, IACS UR E10<br>Marine DNV GL – Ships; High speed and light craft |
| **Safety standards and certifications** | Information technology equipment:<br>UL/CSA 60950-1, IEC 60950-1 CB with all country deviations<br>UL/CSA 62368-1, IEC 62368-1 CB with all country deviations<br>Industrial floor (control equipment):<br>UL/CSA 61010-2-201<br>CB report and certificate to IEC/EN 61010-2-201<br>Hazardous locations:<br>UL121201 (Class I, Div 2, groups A-D)<br>CSA 213 (Class I, Div 2, groups A-D)<br>UL/CSA 60079-0, -15 (Class I, Zone 2, Gc/IIC)<br>IEC 60079-0, -15 IECEx test report (Class I, Zone 2, Gc/IIC)<br>EN 60079-0, -15 ATEX certificate (Class I, Zone 2, Gc/IIC) Cabinet enclosure required |
| **Operating environment** | Operating temperature:<br>-40°C to +70°C (40 LFM vented enclosure)<br>-40°C to +60°C (sealed enclosure)<br>-40°C to +75°C (Min. 200 LFM fan or blower-equipped enclosure)<br>+85°C (type tested for 16 hours)<br>Altitude: Up to 15,000 feet |
| **Storage environment** | Temperature: -40°C to +85°C<br>Altitude: 15,000 feet<br>IEC 60068-2-14 |
| **Humidity** | Relative humidity of 5% to 95% non-condensing<br>IEC 60068-2-78<br>IEC 60068-2-30 |
| **Shock and vibration** | IEC 60068-2-27 (operational shock, 50G, 3ms, half sine)<br>IEC 60068-2-27 (non-operational shock, 65-80G, 9ms, trapezoidal)<br>MIL-STD-810, Method 514.4<br>IEC 60068-2-6 (vibration-sinusiodal, 5Hz-150Hz) |

| Descriptions | Specifications |
|---|---|
| **Corrosion** | IEC 60068-2-52 (salt fog)<br>IEC 60068-2-60 (flowing mixed gas) |
| **Railway** | EN50125-1: 2014<br>EN50125-3: 2003<br>EN50121-4 Railway – Signaling and Telecommunications Apparatus<br>EN50155- Railway applications - Rolling stock |
| **Warranty** | Five-year limited hardware warranty on all IE3200 product IDs and all Industrial Ethernet (IE) power supplies. See more information under the Warranty section |

[1]For more detailed information on safety approved power/thermal ratings refer the Hardware Installation Guide.

Table 12 highlights Mean-Time-Between-Failures (MTBF) for Cisco Catalyst IE3200 Rugged Series switches.

**Table 12.**   MTBF information

| Parameter | Cisco IE-3200-8T2S-E | Cisco IE-3200-8P2S-E |
|---|---|---|
| **Rated MTBF (hours)** | 641,150 | 613,125 |

Table 13 highlights information about management and standards for Cisco Catalyst IE3200 Rugged Series switches.

**Table 13.**   Management and standards

| Descriptions | Specifications | |
|---|---|---|
| **IEEE standards** | IEEE 802.1D MAC Bridges, STP<br>IEEE 802.1p Layer2 COS prioritization<br>IEEE 802.1q VLAN<br>IEEE 802.1s Multiple Spanning-Trees<br>IEEE 802.1w Rapid Spanning-Tree<br>IEEE 802.1x Port Access Authentication<br>IEEE 802.1AB LLDP<br>IEEE 1588v2 PTP Precision Time Protocol | IEEE 802.3ad Link Aggregation (LACP)<br>IEEE 802.3ah 100BASE-X SMF/MMF only<br>IEEE 802.3x full duplex on 10BASE-T<br>IEEE 802.3 10BASE-T specification<br>IEEE 802.3u 100BASE-TX specification<br>IEEE 802.3ab 1000BASE-T specification<br>IEEE 802.3z 1000BASE-X specification<br>IEEE 802.3af Power over Ethernet<br>IEEE 802.3at Power over Ethernet plus |
| **RFC compliance** | RFC 768: UDP<br>RFC 783: TFTP<br>RFC 791: IPv4 protocol<br>RFC 792: ICMP<br>RFC 793: TCP<br>RFC 826: ARP<br>RFC 854: Telnet | RFC 1492: TACACS+<br>RFC 1493: Bridge MIB Objects<br>RFC 1534: DHCP and BOOTP interoperation<br>RFC 1542: Bootstrap Protocol<br>RFC 1643: Ethernet Interface MIB<br>RFC 1757: RMON<br>RFC 2068: HTTP |

| Descriptions | Specifications | |
|---|---|---|
| | RFC 959: FTP | RFC 2131, 2132: DHCP |
| | RFC 1157: SNMPv1 | RFC 2236: IGMP v2 |
| | RFC 1901,1902-1907 SNMPv2 | RFC 3376: IGMP v3 |
| | RFC 2273-2275: SNMPv3 | RFC 2474: DiffServ Precedence |
| | RFC 2571: SNMP Management | RFC 3046: DHCP Relay Agent Information Option |
| | RFC 1166: IP Addresses | |
| | RFC 1256: ICMP Router Discovery | RFC 3580: 802.1x RADIUS |
| | RFC 1305: NTP | RFC 4250-4252 SSH Protocol |
| | RFC 951: BootP | RFC 5460: DHCPv6 bulk lease query |
| **SNMP MIB objects** | 802.1X MIB | CISCO-IF-EXTENSION-MIB |
| | CISCO-DHCP-SNOOPING-MIB | CISCO-IMAGE-MIB |
| | CISCO-UDLDP-MIB | CISCO-MEMORY-POOL-MIB |
| | CISCO-ENVMON-MIB | CISCO-PING-MIB |
| | CISCO-PRIVATE-VLAN-MIB | SNMP-TARGET-EXT-MIB |
| | CISCO-PAE-MIB | IF_MIB |
| | Cisco-Port-QoS-MIB | ENTITY-MIB |
| | CISCO-ERR-DISABLE-MIB | LLDP-EXT-PNO-MIB |
| | CISCO- PROCESS-MIB | NOTIFICATION-LOG-MIB |
| | LLDP-MIB | OLD-CISCO-CPU-MIB |
| | CiscoMAC Notification-MIB | ETHERLIKE-MIB |
| | CISCO-CONFIG-COPY-MIB | OLD-CISCO-SYSTEM-MIB |
| | LLDP-MED-MIB | OLD-CISCO-MEMORY-MIB |
| | Bridge-MIB | RMON-MIB |
| | CISCO-CAR-MIB | SNMP-COMMUNITY-MIB |
| | CISCO-LAG-MIB | SNMP-FRAMEWORK-MIB |
| | CISCO-SYSLOG-MIB | SNMP-PROXY-MIB |
| | CISCO-FTP-CLIENT-MIB | SNMP-MPD-MIB |
| | CISCO-VLAN-IFTABLE-RELATIONSHIP-MIB | SNMP-NOTIFICATION-MIB |
| | CISCO-VLAN-MEMBERSHIP-MIB | SNMP-TARGET-MIB |
| | Cisco-REP-MIB | SNMP-USM-MIB |
| | CISCO-PORT-STORM-CONTROL-MIB | CISCO-DATACOLLECTION-MIB |
| | CISCO-CDP-MIB | CISCO-CABLE-DIAG-MIB |
| | CISCO-IP-STAT-MIB | CISCO -PORT-SECURITY-MIB |
| | CISCO-LICENSE-MGMT-MIB | BULK_FILE_MIB |
| | CISCO-STP-EXTN-MIB | NAC-NAD-MIB |
| | CISCO-VTP-MIB | CISCO-ENTITY-ALARM-MIB |
| | IEEE8023-LAG-MIB | SNMP-VIEW-BASED-ACM-MIB |

| Descriptions | Specifications | |
|---|---|---|
| | SMON-MIB | CISCO-MAC-AUTH-BYPASS-MIB |
| | CISCO-ACCESS-ENVMON-MIB | CISCO-AUTH-FRAMEWORK-MIB |
| | CISCO-CALLHOME-MIB | CISCO-BRIDGE-Ext-MIB |
| | CISCO-CONFIG-MAN-MIB | SNMPv2-MIB |
| | CISCO-FLASH-MIB | CISCO-ENTITY-VENDORTYPE-OID-MIB |
| | CISCO-ENTITY-SENSOR-MIB | CISCO-PRODUCTS-MIB |
| | IP-MIB | IP-FORWARD-MIB |
| | CISCO-PAGP-MIB | |

Table 14 highlights information about supported SFPs for Cisco Catalyst IE3200 Rugged Series switches.

**Table 14.**   SFP Support

| Part Number | Specifications | SFP type | Temperature range[1] | Maximum distance | Cable type | Dom support |
|---|---|---|---|---|---|---|
| GLC-FE-100FX-RGD | 100BASE-FX | FE | IND | 2 km | Multimode Fiber (MMF) | No |
| GLC-FE-100LX-RGD | 100BASE-LX10 | FE | IND | 10 km | Single-Mode Fiber (SMF) | No |
| GLC-FE-100FX | 100BASE-FX | FE | COM | 2 km | MMF | No |
| GLC-FE-100LX | 100BASE-LX10 | FE | COM | 10 km | SMF | No |
| GLC-FE-100EX | 100BASE-EX | FE | COM | 40 km | SMF | No |
| GLC-FE-100ZX | 100BASE-ZX | FE | COM | 80 km | SMF | No |
| GLC-FE-100BX-U | 100BASE-BX10 | FE | COM | 10 km | SMF | No |
| GLC-FE-100BX-D | 100BASE-BX10 | FE | COM | 10 km | SMF | No |
| GLC-SX-MM-RGD | 1000BASE-SX | GE | IND | 220-550 m | MMF | Yes |
| GLC-LX-SM-RGD | 1000BASE-LX/LH | GE | IND | 550 m/10 km | MMF/SMF | Yes |
| GLC-ZX-SM-RGD | 1000BASE-ZX | GE | IND | 70 km | SMF | Yes |
| SFP-GE-S | 1000BASE-SX | GE | EXT | 220-550 m | MMF | Yes |
| SFP-GE-L | 1000BASE-LX/LH | GE | EXT | 550 m/10 km | MMF/SMF | Yes |
| SFP-GE-Z | 1000BASE-ZX | GE | EXT | 70 km | SMF | Yes |
| GLC-BX-U | 1000BASE-BX10 | GE | COM | 10 km | SMF | Yes |
| GLC-BX-D | 1000BASE-BX10 | GE | COM | 10 km | SMF | Yes |
| GLC-SX-MM | 1000BASE-SX | GE | COM | 220-550 m | MMF | Yes |

| Part Number | Specifications | SFP type | Temperature range[1] | Maximum distance | Cable type | Dom support |
|---|---|---|---|---|---|---|
| GLC-LH-SM | 1000BASE-LX/LH | GE | COM | 550 m/10 km | MMF/SMF | Yes |
| GLC-ZX-SM | 1000BASE-ZX | GE | COM | 70 km | SMF | Yes |
| GLC-EX-SMD | 1000BASE-EX | GE | COM | 40 km | SMF | Yes |
| GLC-TE | 1000BASE-T | GE | EXT | 100 m | Cat5e | No |
| GLC-BX40-U-I= | 1000BASE-BX40 | GE | IND | 40km | SMF | Yes |
| GLC-BX40-D-I= | 1000BASE-BX40 | GE | IND | 40km | SMF | Yes |
| GLC-BX40-DA-I= | 1000BASE-BX40 | GE | IND | 40km | SMF | Yes |
| GLC-BX80-U-I= | 1000BASE-BX80 | GE | IND | 80km | SMF | Yes |
| GLC-BX80-D-I= | 1000BASE-BX80 | GE | IND | 80km | SMF | Yes |
| GLC-SX-MMD= | 1000BASE-SX | GE | EXT | 550m | MMF | Yes |
| GLC-LH-SMD= | 1000BASE-LX/LH | GE | EXT | 550m/10km | MMF/SMF | Yes |
| GLC-ZX-SMD= | 1000BASE-ZX | GE | EXT | 70km | SMF | Yes |
| GLC-T-RGD= | 1000BASE-T | GE | IND | 100m | Copper | NA |
| GLC-BX-U-I= | 1000BASE-BX | GE | IND | 10km | SMF | Yes |
| GLC-BX-D-I= | 1000BASE-BX | GE | IND | 10km | SMF | Yes |
| CWDM-SFP-1470 | 1000BASE-CWDM | 10GE | COM | 80km | SMF | Yes |
| CWDM-SFP-1610 | 1000BASE-CWDM | 10GE | COM | 80km | SMF | Yes |
| CWDM-SFP-1530 | 1000BASE-CWDM | 10GE | COM | 80km | SMF | Yes |
| CWDM-SFP-1490 | 1000BASE-CWDM | 10GE | COM | 80km | SMF | Yes |
| DWDM-SFP-3033 | 1000BASE-DWDM | 10GE | COM | 80km | SMF | Yes |
| DWDM-SFP-3112 | 1000BASE-DWDM | 10GE | COM | 80km | SMF | Yes |

[1]If non-industrial SFPs (EXT, COM) are used, the switch operating temperature must be derated.

## Ordering information

Table 15 lists the ordering information for fixed system and memory that are commonly used with the Cisco Catalyst IE3200 switches.

**Table 15.**    Ordering information

| Part number | Product description |
|---|---|
| IE-3200-8T2S-E | Catalyst IE3200 w/ 8 GE Copper and 2 GE SFP, Fixed System, Network Essentials |
| IE-3200-8P2S-E | Catalyst IE3200 w/ 8 GE PoE/PoE+ and 2 GE SFP, Fixed System, Network Essentials |
| SD-IE-4GB= | Industrial Ethernet (IE) 4-GB SD memory card for IE |
| STK-RACK-DINRAIL= | 19" DIN Rail mount kit |
| IE3200-DNA-E[1] | Cisco Catalyst Center Essentials license for IE3200 Series |
| IE3200-DNA-E-3Y | IE 3200 Cisco Catalyst Center Essentials, 3 Year Term license |
| IE3200-DNA-E-5Y | IE 3200 Cisco Catalyst Center Essentials, 5 Year Term license |
| IE3200-DNA-E-7Y | IE 3200 Cisco Catalyst Center Essentials, 7 Year Term license |
| LIC-MRP-MGR-XE= | MRP Ring Manager License |
| LIC-MRP-CLIENT-XE= | MRP Ring Client License |

[*]MRP Feature Licenses are not required from release IOS XE 17.7.1 onwards. Please refer to the IOS XE 17.7.1 Release Notes.

[1]Cisco Catalyst Center Advantage license is not required for IE3200 to be in Extended Node Mode.

## Warranty

Five-year limited HW warranty on all IE3200 PIDs and all IE Power Supplies (see table 8 above). See link below for more details on warranty https://www.cisco.com/c/en/us/products/warranties/warranty-doc-c99-740591.html.

# Cisco environmental sustainability

Information about Cisco's environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the "Environment Sustainability" section of Cisco's Corporate Social Responsibility (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the "Environment Sustainability" section of the CSR Report) are provided in the following table:

| Sustainability topic | Reference |
|---|---|
| Information on product material content laws and regulations | Materials |
| Information on electronic waste laws and regulations, including products, batteries, and packaging | WEEE compliance |

Reference links to product-specific environmental sustainability information that is mentioned in relevant sections of this data sheet are provided in the following table:

| Sustainability Topic | Reference |
|---|---|
| **Power** | |
| Power specifications and consumption | Table 7. IE3200 power specifications |
| **Environmental Characteristics** | |
| Operating temperature, industry standards, EMC emissions | Table 11. Compliance specifications |
| **Material** | |
| Unit Weight | Table 5. IE3200 physical configurations |

Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.

# Cisco Services

https://www.cisco.com/web/services/.

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# Document history

| New or Revised Topic | Described In | Date |
|---|---|---|
| DNA name change to Catalyst Center, Temperature Range change for Blower Cabinet, Addition of UL60101 | Entire Datasheet, Compliance Specificiation | October 19, 2023 |
| Updated AREMA Certification, DNV GL, Railway certifications, EN61000 Power Frequency Magnetic Field, Extended Node, | Table 11, Table 10 | December 19, 2022 |
| Updated IPv6 Ready Logo, removed IPv6 VRF aware BGP feature, updated DNA License information, BGP MIB removal, updated SFP support, Cisco Environmental Sustainability information | Table 1, 9, 10, 13, 14, Cisco Environmental Sustainability | October 29, 2021 |
| Added IEC 60068-2-6 (vibration-sinusiodal, 5Hz-150Hz) | Table 11 | November 18, 2020 |
| Added measures in metric system; updated name of standard: EN 61000-4-10 Damped Oscillatory Magnetic Field (100 A/m) and removed "test in progress" from IEEE 1613 & EN/IEC 61850-3 | Table 5 and Table 11 | October 06, 2020 |
| Revised: PoE/PoE+ budget language clarification | Overview and Table 1 | December 17, 2019 |
| Added Hardware configurations; updated hardware specifications; updated power specifications | Table 3, Table 4, Table 7 | December 17, 2019 |
| Added PWR-IE50W-AC-IEC= to Power Supply Options; Added details on IPv6 support and PROFINET support on key supported software features | Table 8 and Table 9 | December 17, 2019 |
| Added new part numbers on SFP support | Table 14 | December 17, 2019 |
| Fixed descriptions on product description in ordering information | Table 15 | December 17, 2019 |